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In Re Application of: David Thompson, et al.	§	
Serial No: Not Yet Assigned	§	Group Art Unit: Unknown
Filed: Concurrently Herewith	§	Examiner: Unknown
Title: WIRELESS ASP SYSTEMS AND METHODS	§	

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Carolyn Firestone

PRELIMINARY AMENDMENT

Sir:

Applicant submits the following preliminary amendment to the present application which is filed concurrently herewith:

In the Specification:

Directly after the title of the invention, please insert the following:

--Cross-Reference to Related Application

This application is related to U.S. Provisional Patent Application No. 60/241,096 titled "Wireless ASP Systems and Methods" , filed October 17, 2000, co-pending herewith and which is hereby incorporated herein by this reference. –

In the Claims:

Add the following claims:

--13. A co-processor for use with a computing device, comprising:

a digital signal processor;

a connector for communicatively connecting the co-processor with the computing device; and

a program of the digital signal processor for performing an optimized wireless communication.

14. The co-processor of claim 13, wherein:

the computing device includes a plug-in socket; and

the connector is a plug compatible with a plug-in socket of the computing device.

15. The co-processor of claim 13, further comprising:

a wireless communications modem; and

wherein the digital signal processor is embedded in the wireless communications modem connectible to the connector.

16. The co-processor of claim 13, further comprising:

a communications bus of the computing device; and

wherein the plug-in socket of the computing device connects to the bus, so that the co-processor can communicate with the communications bus through the plug-in socket.

17. The co-processor of claim 13, wherein the co-processor performs an operation selected from the group consisting of: encryption, decryption, communications, protocol handling, and location positioning.

18. The co-processor of claim 13, wherein the co-processor enables communications over a wireless channel, further comprising:

a standard communications protocol for communicating between the co-processor and the computing device;

a specialized communications protocol for communicating between the co-processor over the wireless channel; and

wherein the co-processor includes an interface between a standard communications protocol and a specialized communications protocol.

19. A method of operation of a co-processor, the co-processor being connected to a computing device and the co-processor including a digital signal processor, comprising the steps of:

receiving a communication formatted according to a specialized communications protocol; and

processing the communication and formatting the communication according to a standard communications protocol.

20. The method of claim 19, wherein the communication is received by the co-processor from a wireless channel.

21. The method of claim 20, wherein the co-processor communicates the communication in the standard communications format to the computing device.

22. The method of claim 19, further comprising the steps of:

sending a communication formatted according to a specialized communications protocol; and

processing the communication formatted as a standard communications protocol to format the communication according the specialized communications protocol, prior to the step of sending.

23. The method of claim 22, wherein the co-processor communicates with the computing device according to the standard communications protocol and communicates over a wireless channel according the specialized communications protocol.

24. The method of claim 23, wherein the standard communications protocol is TCP/IP.

25. The method of claim 23, wherein the specialized communications protocol is an optimized protocol for communicating over the wireless channel and conforms to the OSI reference model.

26. The method of claim 25, wherein the method is performed by an embedded system within a wireless modem of the computing device.

27. A method of communicating different data types over a wireless channel, comprising the steps of:

receiving data files of different data types;

parsing the data files to determine the respective data types;

prioritizing the data files according to a prioritization scheme for the different data types.

28. The method of claim 27, further comprising the step of:

transmitting the data files in accordance with the prioritization of the prioritization scheme.

29. The method of claim 28, wherein the step of receiving is performed by a computer.

30. The method of claim 28, wherein the step of transmitting is performed by a computer.

31. The method of claim 30, wherein a wireless channel is employed in the step selected from the group consisting of: transmitting, receiving, and both transmitting and receiving.

32. The method of claim 31, wherein the computing device is a wireless ASP server computer.

33. The method of claim 32, wherein the wireless ASP server computer communicates over the wireless channel with a client device.

34. The method of claim 33, wherein the client device also communicates with the wireless ASP server computer over the wireless channel and performs the steps of:

receiving data files of different data types;

parsing the data files to determine the respective data types;

prioritizing the data files according to a prioritization scheme for the different data types; and

transmitting the data files in accordance with the prioritization of the prioritization scheme.

35. The method of claim 34, wherein the different data types include data types selected from the group consisting of: text data, gif, jpg, html, and xml.

36. A method of operation of a wireless ASP server computer, comprising the steps of:

receiving communications over a wireless channel, the communications comprised of more than one data type;

parsing the more than one data type;

prioritizing the more than one data type; and

processing the more than one data type according to a select prioritization scheme for the more than one data type.

37. The method of claim 36, wherein the step of processing includes transmitting the more than one data type in sequence according to the select prioritization scheme.

38. The method of claim 36, wherein the step of processing also includes other processing steps peculiar to the more than one data type.

39. The method of claim 37, wherein the other processing steps are selected from the group consisting of: discarding at least one of the more than one data type, sequential ordering of the more than one data type, and on the fly prioritization according to then-existing conditions and constraints of the wireless channel.

40. The method of claim 36, wherein the steps of receiving and transmitting are each performed with the more than one data type as pursuant to a specialized communications protocol for the wireless channel.

41. The method of claim 38, wherein the specialized communications protocol is based on an OSI reference model.

42. A communications device, comprising:

a protocol dictionary.

43. The device of claim 42, wherein the protocol dictionary includes a relational database.

44. The device of claim 43, wherein the relational database maintains data relevant to a specialized wireless communications protocol.

45. The device of claim 44, wherein the data maintained by the relational database is selected from the group consisting of: commands, instructions, and other information.

46. The device of claim 44, further comprising:

a wireless communications channel;

a server device communicatively connected with the device over the wireless channel; and

wherein the device is a client device that communicates over the wireless channel with the server device.

47. The device of claim 44, further comprising:

a wireless communications channel;

a client device communicatively connected with the device over the wireless channel; and

wherein the device is a server device that communicates over the wireless channel with the client device.

48. The device of claim 47, wherein the relational database of the protocol dictionary maintains the same data on the client device and the server device.

49. The device of claim 47, further comprising:

a synchronizer for syncing the data of the protocol dictionary of the server device with the data of the protocol dictionary of the client device.

50. The device of claim 49, wherein the device acts as a master to the client device, with respect to synchronization.

51. The device of claim 49, wherein the device acts as a slave to client device, with respect to synchronization.

52. The device of claim 43, further comprising:

a dynamic protocol dictionary generator.

53. The device of claim 52, further comprising:

a wireless communications channel communicatively connected to the device; and

wherein the dynamic protocol dictionary generator processes, in real time, in order to derive a dictionary element for the relational database, a data selected from the group consisting of: user specified dictionary element, algorithmically derived dictionary

element based on repeatedly communicated data, and by algorithmically derived dictionary element based on at least one state of the wireless communications channel.

54. A method of wireless communications, comprising the steps of:

generating a protocol dictionary.

55. The method of claim 54, wherein the protocol dictionary includes a relational database.

56. The method of claim 55, wherein the step of generating is performed on a device capable of communications over a wireless channel.

57. The method of claim 56, wherein a data maintained in the relational database is elected from the group consisting of: user-specified dictionary element, algorithmically derived dictionary element based on repeatedly communicated data, and by algorithmically derived dictionary element based on at least one state of the wireless communications channel.

58. The method of claim 57, further comprising the steps of:

synchronizing the data maintained in the relational database of the dynamic protocol dictionary with a second device capable of wireless communications with the device.

59. The method of claim 58, wherein the device is a server computer and the second device is a client computer, the server computer and the client computer communicatively connected over a wireless communications channel.

60. The method of claim 59, further comprising the steps of:

communicating between the server computer and the client computer over the wireless communications channel according to a specialized wireless communications protocol based on the OSI reference model.

61. A first communications device, comprising:

a first cache file; and

a first synchronizer connected to the first cache file.

62. The device of claim 61, further comprising:

a second communications device;

a data of the first cache file;

wherein the data is synchronized by the synchronizer between the first cache file and the second communications device.

63. The device of claim 62, further comprising:

a second cache file;

wherein the data is synchronized by the synchronizer between the first cache file and the second cache file.

64. The device of claim 63, wherein the first cache file is a memory included in the first communications device and the second cache file is a memory included in the second communications device.

65. The device of claim 64, wherein the synchronizer comprises:

a wireless communicator for communicating a cache state from the first communications device to the second communications device, the second cache is modified by the second communications device to account for the cache state and thereby synchronize the first cache and the second cache.

66. The device of claim 65, wherein the wireless communicator is a wireless modem of the first communications device.

67. The device of claim 66, wherein communications from the first communications device to the second communications device of the cache state are carried over the wireless communications channel.

68. The device of claim 67, wherein the communications of the cache state over the wireless communications channel conform to a specialized wireless protocol conforming to an OSI reference model.

69. A method of synchronizing, comprising the steps of:

saving a cache state at a first communications device to a first cache;

communicating the cache state by the first communications device to a second communications device; and

saving the cache state at the second communications device to a second cache.

70. The method of claim 69, wherein the step of communicating is performed according to a specialized wireless protocol communicated over a wireless channel communicatively connected to the first communications device and the second communications device.

71. The method of claim 70, wherein the specialized wireless protocol is based on an OSI reference model.

72. The method of claim 70, wherein the first communications device is an ASP server computer and the second communications device is a wireless client device.--

Respectfully submitted,

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